

REMARKS

Claims 1-23 are currently pending. Claims 1, 3-6 and 9-11 are original. Claims 2, 7-8, 12-20 are currently amended. Claims 1 and 12 are independent. New claims 21-23 are added. No new matter is added.

Claims 1-11 and 13-20 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1-11 stand rejected under 35 U.S.C. §101, as being directed to non-statutory subject matter.

Claims 1-4, 6-14 and 16-20 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 3,783,250 to Fletcher et al. (referred to herein after as, "Fletcher") in view of U.S. Patent No. 6,931,568 to Abbondanzio et al. (referred to herein after as, "Abbondanzio").

Claims 5 and 15 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Fletcher in view of Abbondanzio and further in view of U.S. Patent No. 5,123,089 to Beilinski et al. (referred to herein after, as "Beilinski").

Response to the Indefiniteness Rejection of Claim 1 under 35 U.S.C. §112, Second Paragraph

Applicants hereby traverse the rejection of claim 1 under §112, second paragraph and respectfully request reconsideration thereof in view of the remarks set forth below.

The Office Action alleges that the claim "appears to cover anything and everything that does not prohibit...[the]...actions [of allowing and having, as recited in claim 1,] from occurring" and, therefore, the "metes and bounds of the claim" is unclear. Applicants point out that in making this indefiniteness rejection, the Examiner is evidently examining the breadth of claim 1 by stating issues relating to "metes and bounds" and claim coverage. However, as a matter of law, an issue of the breadth of a claim cannot be equated with indefiniteness.

MPEP §2173.04

"Breadth of a claim is not to be equated with indefiniteness. In re Miller, 441 F.2d 689, 169 USPQ 597 (CCPA 1971). If the scope of the subject matter embraced by the claims is clear, and if applicants have not otherwise indicated that they intend the invention to be of a scope different from that defined in the claims, then the claims comply with 35 U.S.C. 112, second paragraph."

Claim 1 is directed to a process for arbitrating between active and protected status. The process includes allowing each card to make a determination of the health of another card and allowing each card to deliver a vote, representative of the determination of health. The process also includes having the card determine, as a function of the delivered votes whether it is to be isolated. Applicants submit that the scope of the subject matter embraced by the claim is clear, more so in light of the specification. Therefore, the Examiner has erred as a matter of law in rejecting claim 1 under §112, second paragraph since the breadth of a claim is not indefiniteness. Furthermore, the MPEP in §2111 states that "during patent examination, the pending claims must be given broadest reasonable interpretation consistent with the specification." Accordingly, applicants respectfully request reconsideration and withdrawal of the rejection of claim 1 under §112, second paragraph.

Response to other rejections under 35 U.S.C. §112, Second Paragraph

The Office Action has rejected claim 2 and 19 as depending from themselves. Applicants acknowledge with appreciation that the Examiner has correctly examined claim 2 as depending from claim 1. Accordingly, applicants amend claims 2 to depend from claim 1. Applicants also amend claim 19 to correctly depend from claim 18 since it references "the self-diagnostic process" of claim 18. Therefore, applicants respectfully request reconsideration and withdrawal of the rejection of claims 2 and 19 under §112, second paragraph.

The Office Action has rejected claim 13-18 and 20 as depending incorrectly from claim 1 or its dependent claims. Applicants acknowledge with appreciation that the Examiner has correctly examined claim 13-18 as depending from claim 12. Accordingly, applicants amend claims 13-18 to correctly depend from claim 12. Applicants also amend claim 20 to correctly depend from claim 18 since it references "the self-diagnostic process" of claim 18. Therefore, applicants respectfully request reconsideration and withdrawal of the rejection of claims 13-18 and 20 under §112, second paragraph.

Response to Rejection under 35 U.S.C. §101

Applicants hereby traverse the rejection of claims 1-11 under §101 and respectfully request reconsideration thereof in view of the remarks set forth below.

The Office Action alleges that "since claim 1 recites limitations of having and allowing a card to perform something, instead of positively reciting that the card performs those functions, there does not seem to be a useful, concrete and tangible result."

The Office improperly rejects claims 1-11 under §101. As noted earlier, the Office Action is analyzing the breadth of the claims by evaluating the scope of terms such as "allowing" and "having." However, such an analysis is not appropriate under 35 U.S.C. §101, which discusses the utility of a claimed invention.

MPEP §2173.04

"Undue breadth of the claim may be addressed under different statutory provisions, depending on the reasons for concluding that the claim is too broad. If the claim is too broad because it does not set forth that which applicants regard as their invention as evidenced by statements outside of the application as filed, a rejection under 35 U.S.C. 112, second paragraph, would be appropriate. If the claim is too broad because it is not supported by the original description or by an enabling disclosure, a rejection under 35 U.S.C. 112, first

paragraph, would be appropriate. If the claim is too broad because it reads on the prior art, a rejection under either 35 U.S.C. 102 or 103 would be appropriate."

Therefore, the Office Action has erred as a matter of law in rejecting claims 1-11 under §101.

Moreover, applicants point out that claims 1-11 are directed to statutory processes with the useful, concrete and tangible result of "having a respective card determine as a function of delivered votes a health status representative of whether the card is to be isolated" based, at least, on the "determination of the health of the card" by another. The "determination of the health of a card" may include, among other things, "measuring a response time" or "identifying a parity error." These are concrete and tangible things that are particularly useful for providing "redundancy", and identifying and isolating "malfunctioning cards." Thus, the claims recite useful subject matter with tangible, real-world applications and concrete results.

Applicants note, that as expressly pointed out in Annex II of the Interim Guidelines for Patent Subject Matter Eligibility, In State Street, the Federal Circuit examined some of the prior 101 cases, observing that certain claimed inventions that apply abstract ideas to produce a useful, concrete and tangible result are proper under §101. The Annex also expressly points out that in determining whether the claim is for a "practical application" the focus is not on whether the steps taken to achieve are "useful, tangible and concrete," but rather that the final result is "useful, tangible and concrete." Thus, the Annex II not only fails to support the asserted position, the Annex II makes expressly clear that the rejection made is improper. Therefore, Applicants request reconsideration and withdrawal of the §101 rejections of claims 1-11.

Response to rejection of Claim 1 under §103

Applicants hereby traverse the rejection of claim 1 under §103 and respectfully request reconsideration thereof in view of the remarks set forth below.

Claim 1 is directed to a process for arbitrating between active and protected status. The process includes allowing each card to make a determination of the health of another card and allowing each card to deliver a vote representative of the respective cards determination of health of the other card. The process also includes having a respective card determine, as a function of the delivered votes a health status representative of whether it is to be isolated.

Fletcher in combination with Abbondanzio does not teach or suggest a process for arbitrating between an active state and protected state as recited in base claim 1. Fletcher is directed to an "adaptive control apparatus for interconnecting operational units of a plurality of self-testing computer modules with a data bus while excluding failed computer modules from communication with the bus." (See Col. 1, Lines 40-44; Col. 3, Lines 33-35). Abbondanzio is directed to a system having redundant service processors and to a method of managing the service processors when one fails.

The Office Action states that "Fletcher fails to teach that each computer module is implemented as a card." The Office Action further states that Abbondanzio "teaches...computer modules implemented as cards." However, even if one were to combine Fletcher and Abbondanzio, as suggested by the Examiner, to provide a system having computer modules that are cards, these computer modules of Fletcher, by itself, are not capable of determining a health status indicating whether a card is to be isolated. Fletcher merely teaches a control apparatus separate from the computer modules that excludes failed computers modules from communicating with the bus. Therefore, it is this separate control apparatus and not the computer modules itself that excludes failed computer modules from communicating with the data bus. In contrast, "the card" recited in claim 1, itself determines a health status representative of whether it is to be isolated. Thus, the gap between Fletcher and the claimed subject matter is larger than admitted. Therefore, Fletcher, alone or in combination with, Abbondanzio does not teach or suggest each and every element in base claim 1.

Even assuming arguendo that Fletcher's computer module, adaptive control apparatus, VCS and IOP where all implemented within each computer module and considered as single combined card¹, Fletcher in combination with Abbondanzio still does not teach or suggest the process as recited in claims 1-11.

In particular, each of Fletcher's hypothetically combined cards may determine (through the "adaptive control apparatus") if another one of the combined cards have failed. (See Col. 1, Lines 60-61). Based on this determination of the failure status of the other cards, a vote for an "interconnection mode" for the system might be "transmitted" from the combined card (by the VCS) to the data bus. (See Col. 40, Lines 26-32). The interconnection mode is the "configuration [of the computer modules] with the data bus." For example, interconnection modes for four computer modules include "four-way voting" where all four computers are considered operational, "three-way voting" where three computers are operational and one computer is standby/failed, etc. (See Co. 1, Lines 55-68 to Col. 2, Lines 1-5). Similarly, each of the combined cards might provide a vote for an interconnection mode based on their determination of the status of the other cards. The combined cards, in communication with each other, determine a majority selected interconnection mode based on votes provided by each of the cards. The majority vote determines if a card is to be "disregarded" or not. (See Col. 39, Lines 54-60; Col. 40, Lines 29-45).

In contrast, claim 1 recites "having a respective card determine as a function of delivered votes a health status representative of whether the card is to be isolated." Fletcher in combination with Abbondanzio does not teach having a card determine for itself whether the votes received from the other cards indicate it is to be isolated. Instead, Fletcher teaches all the cards coming to a majority consensus regarding the mode of operation of the system and then "disregarding" a card based on the decision reached by the system level consensus decision. Each card in Fletcher does not determine based on the votes of other cards whether it needs to be isolated. This step of having a respective card determine as a function of delivered votes a health status representative of whether

¹ Nowhere in Fletcher is there any teaching or suggestion for implementing any of these components within each of the computer modules, as admitted in the Office Action.

the card is to be isolated is absent from the combined applied art. And yet it is expressly stated material of the claim.

Further, the system disclosed by Fletcher is of the type mentioned in the background of applicants' disclosure, that requires a decision to be made by systems that are, by nature, failing. As noted in the background, prior art fail safe techniques have employed system level processes that transition a malfunctioning card out of the system. In contrast, applicants' system will, at the respective card level, have a card transition itself out of the system. Applicants' system would not require, as Fletcher requires, a failing system to process an instruction generated from a consensus level system vote to take itself offline. This reduces complexity and provides more on board control to the isolation system on each respective card.

Therefore, Fletcher, alone or in combination, with Abbondanzio does not teach "having a respective card determine as a function of delivered votes a health status representative of whether the card is to be isolated."

In view of the above remarks, neither Fletcher nor Abbondanzio, alone or in combination, teaches or suggests each and every element of base claim 1. To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). "All words in a claim must be considered in judging the patentability of that claim against the prior art." In re Wilson, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970). If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious. In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). Therefore, the §103 Rejection of base claim 1 should be withdrawn. Because claims 2-4 and 6-11 depend from, and are limited by, base claim 1 and add further limitations thereto, the §103 Rejection of these claims should also be withdrawn.

With regards to claim 12, Fletcher and/or Abbondanzio do not teach or suggest a "vote tally mechanism" as recited in the claim. The "vote tally mechanism" in currently amended claim 12 is "responsive to vote signals received from a card in the system" and is "capable of changing an operational state of card in response thereto." As noted in our foregoing arguments, Fletcher and

Abbondanzio do not teach or suggest "having a card determine as a function of votes received from the other cards whether it is to be isolated." Fletcher teaches a system having components that is not capable of changing the operational state of the card in response to a vote. Instead, the system in Fletcher reaches a majority conclusion about the operational state of a computer module and then "disregards" the computer module if it was decided to have failed. Nothing in either Fletcher or Abbondanzio teaches or suggests a vote tally mechanism that is capable of changing an operational state of a card in response to vote signals received from a card in the system. Thus, Fletcher nor Abbondanzio, alone or in combination, teaches or suggests each and every element of base claim 12, and therefore the §103 Rejection of currently amended claim 12 should be withdrawn. Because claims 13-14 and 16-20 depend from, and are limited by, claim 12 and add further limitations thereto, the §103 Rejection of these claims should also be withdrawn.

The combination of Beilinski with the above references fails to teach all of the elements of independent claims 1 and 12. Because claims 5 and 15 depend from, and are limited by, base claims 1 and 12, respectively, and add further limitations thereto, the §103 Rejection of these claims should be withdrawn.

CONCLUSION

At least for these reasons, neither Fletcher or Abbondanzio or Beilinski, taken either alone or in combination, teach or suggest the features recited in claims 1 and 12. Accordingly, these references do not establish a prima facie case of obviousness with respect to claims 1 and 12. Therefore, claims 1 and 12 are non-obvious with respect to the art of record and should be allowed. Claims 2-11 and 13-20 depend, directly or indirectly, from claims 1 and 12 and are also patentable for at least for the same reasons that claims 1 and 12 are patentable.

In view of the above amendment, applicants believes the pending application is in condition for allowance.

Applicants believe no additional fee is due with this response other than a three-month extension of time, and additional claims fees. However, if an additional fee is due, please charge our Deposit Account No. 18-1945, under Order No. CDPC-P01-011 from which the undersigned is authorized to draw.

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Respectfully submitted,

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